

REMARKS

Status

Claims 102-130 were at issue in the present Office Action. During a telephone conversation with Applicant's representative, claim 126 was withdrawn. The present amendment cancels claims 102-106, 111, 118, 122 and 126. In addition, the present amendment adds new claims 131-137. As such, it is claims 107-110, 112-117, 119-121, 123-125 and 127-137 which are at issue.

The Rejection

In the Office Action mailed on October 27, 2008, claims 103-108, 110, 111, 114, 115, 119-121 and 127-130 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, these claims failed to provide sufficient antecedent basis for a number of terms. Claims 102-113, 115, 116, 118-122 and 125 were rejected under 35 U.S.C. §102(b) as being anticipated by Hunter et al. (US 2,537,898). Claims 117 and 123 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hunter et al. Claim 114 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hunter et al. in view of Novak (US 5,744,406). And finally, claim 124 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hunter et al. in view of Boogay (US 4,299,699).

Applicant thanks the Examiner for the search, the examination and for the thorough explanation of the rejections in the present Office Action.

Support for Amendment to the Claims

In order to aid the Examiner by highlighting where support for the amended claims can be found, support for the amendments to the claims is as follows:

Claim 131:

- Basis for “a plurality of layers of a first filtration medium (2)” is on page 7, lines 6-7; page 47 line 19 to page 48 line 2 and in Figure 1, 2, 3, 11 and claim 6 of the PCT application.
- Basis for “each layer having a filtration area and at least one edge” is on page 6, line 17;
- Basis for “a plurality of layers of a spacer medium (1)” and basis for “said layers of a first filtration medium (2) and said layers of a spacer medium (1) are positioned alternately and with the filtration area of said layers of filtration medium (1, 2) faced towards each other” is in Figure 1, 2, 3, 11 and claim 6 of the PCT application.
- Basis for “a downstream zone of at least one layer of said first filtration medium (2), wherein said zone is positioned downstream in relation to said plurality of layers of spacer medium (1)” is on page 30, lines 9-10 and in old claim 4 (claim 10 of the PCT application).
- Basis for “a first sealing (3) for blocking direct entrance of liquid to be filtered into at least one edge of said downstream zone” is on page 13, lines 12-15; page 31, lines 1-10 and claim 2 of the PCT application.
- Basis for “a second sealing (3) positioned upstream of said first sealing (3), said sealing (3) is blocking direct entrance of liquid to be filtered into at least one edge of a layer of the first filtration medium (2) and/or of the spacer medium (1)” is on page 13, lines 30-35, in Figure 1, 2, 3, 11 and in claim 13 of the PCT application.
- Basis for “liquid to be filtered can enter into said filter through the filtration area of the most upstream layer of the first filtration medium (2) or the spacer medium (1) or through

the at least one edge of said first filtration medium (2) and/or of said spacer medium (1)" is on page 32, lines 16-22, in Fig 3 and in claim 1 of the PCT application.

Basis for claim 107 is on page 13, lines 30-35, Fig 1, 2, 3 and 11 and in claim 14 of the PCT application.

Basis for claim 108 is on page 14, lines 14-19, page 19, lines 32-33 and in claim 20 of the PCT application.

Basis for claim 109 is on page 20, lines 7-10, Figure 2, 3 and in claim 21 of the PCT application.

Basis for claim 110 is on page 22, lines 7-8 and in claim 22 of the PCT application.

Basis for claim 112 is in claim 28 of the PCT application.

Basis for claim 113 is in claim 32 of the PCT application.

Basis for claim 114 is in claim 36 of the PCT application.

Basis for claim 115 is in claim 44 of the PCT application.

Basis for claim 116 is in claim 46 of the PCT application.

Basis for claim 117 is in claim 47 of the PCT application.

Basis for claim 119 is in Figure 2, 3, 11 and in claim 55 of the PCT application.

Basis for claim 120 is in claim 58 of the PCT application.

Basis for claim 121 is in claim 62 of the PCT application.

Basis for claim 123 is in claim 73 of the PCT application.

Basis for claim 124 is in claim 74 of the PCT application.

Basis for claim 127 is in claim 91 and 92 of the PCT application.

Basis for claim 128 is on page 31, lines 23-29.

Basis for claim 129 is in claim 95 of the PCT application.

Basis for claim 130 is in claim 96 of the PCT application.

Basis for claim 132 is on page 40, lines 6-21.

Basis for claim 133 is on page 40, lines 6-21, Figure 8, 9 and on page 9, lines 25-32.

Basis for claim 134 is on page 23, lines 25-32 and in claim 27 of the PCT application.

Basis for claim 135 is in claim 69-70 of the PCT application.

Basis for claim 136 is on page 40, line 26 to page 41, line 34 and in claim 88 and 89 of the PCT application.

Basis for claim 137 is on page 9, lines 25-32, in Figure 8-9 and on page 47, line 19 to page 48, line 2.

As such, Applicant submits that no new matter has been added to the application.

**Remarks Directed to the Affirmation of Election of
Claims 102-125 and 127-130 for Continued Prosecution**

Applicant affirms that claim 126 is withdrawn from further consideration. This election is made without traverse, however Applicant requests the right to rejoin claims that fall within Group I of the elected invention.

**Remarks Directed to the Rejection of Claims 103-108, 110, 111,
114, 115, 119-121 and 127-130 under 35 U.S.C. §112, Second Paragraph**

The above-cited claims have been amended in order to provide sufficient antecedent basis for the limitations thereof. As such, Applicant submits that these claims no longer fail to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Therefore, Applicant requests that the rejection of these claims under 35 U.S.C. §112, second paragraph, be withdrawn and the claims moved towards allowance.

**Remarks Directed to the Rejection of Claims 102-113,
115, 116, 118-122 and 125 under 35 U.S.C. §102(b)**

Claims 102-106 have been canceled. However, new claims 131-135 have been added with comments and arguments presented below.

Hunter et al. describes a filter with alternate layers of soft and creped cellulose sheets wound continuously as double ply toilet paper would be formed into a roll (column 1, lines 39-42). A creping treatment of one of the layers assures the presence of a multiplicity of freely intercommunication channels (column 1, lines 45-48).

The intercommunication channels are running parallel to the outside of outer scuff shell or cover from one edge of the filter to the other edge. Hereby the intercommunication channels are not running in concentric rings along the rolled filter. This location of the channels can be seen from the text:

Equal pressure maintained in the two chambers 11 causes the raw filtrate to penetrate the primary filter body P deeply between its sheets. (column 2, lines 40-43)

The finer particles are picked up partly by adsorption as the filtrate is forced to pass through the sheet stock toward the secondary body S. For convenience the edgewise (parallel to sheet stock) filtration treatment which is largely a coarse straining operation can be considered the primary filtration stage, all of which is accomplished in the primary annular body P. Through-sheet or secondary filtration stage treatment is accomplished both in the primary body P and secondary body S, but in the latter body substantially only the secondary treatment takes place. The filtrate must pass successively through all the sheet turns of the secondary body and cannot by-pass any of the layers thereof. (column 2, line 49 to column 3, line 9).

The invention of the present patent application differs from the filter described by Hunter et al. by the following features of claim 131:

- a second sealing (3) positioned upstream of said first sealing (3), and downstream of at least one layer of first filtration medium (2) or spacer medium (1), said sealing (3) is blocking direct entrance of liquid to be filtered into at least one edge of a layer of the first filtration medium (2) and/or of the spacer medium (1), and
- liquid to be filtered can enter into said filter through the filtration area of the most upstream layer of the first filtration medium (2) or the spacer medium (1) or through the at least one edge of said first filtration medium (2) and/or of said spacer medium (1).

The physical difference between the filter of Hunter et al. and the one described in claim 131 of the present patent application is that the filter of the present application includes at least two sealings which are spaced apart, and the filter of claim 131 does not contain an outer scuff shell or cover. Furthermore the intercommunication channels of Hunter et al. are not running as in concentric rings along the rolled filter, this would be the case with the present invention, although claim 131 is not limited to rolled filters.

In the function of the filters, the filter of the present patent application differs from the filter described by Hunter by the fact that

- the liquid to be filtered with the present invention can enter into the filter from the outside and directly into the filtration area of the first filtration medium or of the spacer medium,
- in the filter of the present invention the liquid can enter the filter and exit the filter through the edges of the first filtration medium or spacer medium further downstream and then enter the filter again yet further downstream e.g. when forced into the filter due to the function of the sealings,

- when the filter of the present invention is a cylindrical filter the liquid when entered the filter can run inside of the spacer medium towards the edges of the spacer medium or concentric towards the downstream part of the filter, although only to the zone of first filtration layers positioned downstream of the filter.

Applicant respectfully submits the same above comments for independent claim 135, and in view of these comments, Applicant believes claims 131 and 135 are novel and non-obvious. As such, Applicant requests that independent claims 131 and 135, and all claims depending thereon, be moved towards allowance.

**Remarks Directed to the Rejection of
Claims 114, 117, 123 and 124 under 35 U.S.C. §103(a)**

With independent claims 131 and 135 being novel and non-obvious claim 117 and 123 being dependent on claim 131 are novel and non-obvious. In addition, Applicant respectfully submits the following comments and arguments.

Novak describes a fabric article treated for making the fabric oleophilic and hydrophobic. The fabric may be made of different material e.g. cellulose (column 3, line 14). The fabric is suitable to remove fats, oils, grease and the like in foods (column 3, line 1). Novak does not describe the use of the fabric in a filter with two sealings located as described in claim 131.

Boogay describes a filter with a yarn-like filtering material. The Examiner states that the document teaches a filter house comprising a container and the container has at least one opening means through which the filter cartridge may be changed. Examiner mentions item 25 in Fig. 1 as the opening means. Item 25 is a cover. In Fig. 1 it can be seen that the cover (25) is bolted

onto a pressure tank (10) (column 2, lines 31-32). It is not described whether the filter can be removed from the pressure tank and e.g. exchanged to a new filter. Boogay does not describe a filter with two sealings located as described in claim 131.

As such, Applicant submits that the rejection of claims 114, 117, 123 and 124 under 35 U.S.C. §103(a) be withdrawn and the claims moved towards allowance.

Remarks Directed to New Claims 136 and 137

Claims 136 and 137 recite a method for producing a filter. Applicant submits that these claims are not anticipated, or made obvious, by the cited prior art and thus the claims are in allowable form. As such, Applicant requests that claims 136 and 137 be considered for rejoinder.

Conclusion

This response is being submitted to a non-final rejection. Applicant submits that all of the pending claims are in allowable form. If the Examiner has any suggestions, comments, etc. that would put the claims in better form for allowance, the Examiner is requested to contact the undersigned attorney.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 07-1180.

Dated: 02/24/2009

Respectfully submitted,

Electronic Signature: /Mark A. Harper, Ph.D./

Mark A. Harper, Ph.D.

Registration No.: 60,248

GIFFORD, KRASS, SPRINKLE, ANDERSON
& CITKOWSKI, P.C.

2701 Troy Center Drive, Suite 330

Post Office Box 7021

Troy, Michigan 48007-7021

(248) 647-6000

(248) 647-5210 (Fax)

Attorney for Applicant